



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/892,267	06/27/2001	Ikuo Ozawa	4041K-000027	4849

27572 7590 11/03/2003

HARNESS, DICKEY & PIERCE, P.L.C.
P.O. BOX 828
BLOOMFIELD HILLS, MI 48303

EXAMINER

PATEL, NIHIR B

ART UNIT PAPER NUMBER

3743

DATE MAILED: 11/03/2003

15

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/892,267

Applicant(s)

OZAWA ET AL.

Examiner

Nihir Patel

Art Unit

3743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on August 28th, 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,4,6,7,9,10,12,13,15,16,18,19,21,22 and 24-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1, 3, 4, 29, and 30 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Kanemitsu et al. US Patent No. 5,123,695. Referring to claim 1, Kanemitsu discloses a front body structure of a vehicle and method of assembly that comprises a pair of beam like brackets 21 (see figures 4 and 5) extending transversely across the vehicle and also extending vertically to directly support opposite sides of the heat exchanger (see figure 4), each beam-like bracket being formed with an assembling portion for assembling equipment other than the heat exchanger, the heat exchanger being mounted on the vehicle through the brackets; wherein the heat exchanger and the pair of beam like brackets act as a reinforcing member for reinforcing the vehicle body when mounted on the vehicle (see figures 3 through 9).

Referring to claim 25, Kanemitsu discloses an apparatus wherein the beam-like brackets are fixed to side members of the vehicle body (see figures 4 and 5).

Referring to claim 26, Kanemitsu discloses an apparatus wherein the beam-like brackets are fixed to a front side of the side members of the vehicle body (see figures 4 and 5).

Referring to claim 27, Kanemitsu discloses an apparatus wherein the beam-like brackets comprise a first portion extending transversely across the vehicle and a second portion extending in an up and down direction (see figure 5).

Referring to claim 28, Kanemitsu discloses an apparatus wherein the header tanks of the heat exchanger extend in an up and down direction (see figure 4).

Referring to claim 29, Kanemitsu discloses a front body structure of a vehicle and method of assembly that comprises a pair of beam-like brackets 21 (see figures 4 and 5) extending transversely across the vehicle and also extending vertically to directly support opposite sides of the heat exchanger (see figure 4 and 5), each beam-like bracket being formed with an assembling portion for assembling equipment other than the heat exchanger, the beam-like brackets being fixed to side members of the vehicle body; wherein the heat exchanger is mounted on the vehicle through the pair of beam-like brackets, and the heat exchanger and the pair of beam-like brackets constitute a strength member of the vehicle (see figures 4 and 5).

Referring to claim 30, Kanemitsu discloses a front body structure of a vehicle and method of assembly that comprises a plurality of beam-like brackets 21 (see figures 4 and 5) extending across the vehicle, the plurality of beam like brackets being fixed to side members of the vehicle body; wherein the heat exchanger is mounted on the vehicle through the plurality of brackets, and the heat exchanger and the plurality of beam-like brackets constitute a strength member of the vehicle (see figure 3 through 9).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 6, 9, 12, 15, 18, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanemitsu et al. US Patent No. 5,123,695 in view of Tokutake US Patent no. 5,570,737.

Kanemitsu discloses the applicant's invention as claimed with the exception of providing a pair of beam like brackets that are mounted directly on the header tanks.

Tokutake discloses a heat exchanger that does provide a pair of beam like brackets 12 that are mounted on the header tanks. Therefore it would be obvious to modify Kanemitsu's invention by providing a pair of beam like brackets that are mounted directly on the header tanks in order to provide a stronger connection between the header tanks and the vehicle.

Referring to claims 4, 7, 10, 13, 16, 19, and 22, Kanemitsu discloses the applicant's invention as claimed with the exception of providing a first heat exchanger that comprises a plurality of first tubes for passing a first fluid therethrough and first header tanks arranged at longitudinally ends, respectively, of the plurality of first tubes for communicating with the plurality of first tubes thereby to exchange heat between the air and the first fluid; and second heat exchanger that comprises a plurality of second tubes for passing a second fluid therethrough and second header tanks arranged at longitudinal ends, respectively, of the plurality of the second tubes for communicating with the plurality of second tubes thereby to exchange heat between the

air and the second fluid; wherein the first and second heat exchangers are arranged integrally in series with each other along the direction of the air flow.

Iwasaki discloses a cooling module that does provide a first heat exchanger that comprises a plurality of first tubes for passing a first fluid therethrough and first header tanks arranged at longitudinally ends, respectively, of the plurality of first tubes for communicating with the plurality of first tubes thereby to exchange heat between the air and the first fluid; and second heat exchanger that comprises a plurality of second tubes for passing a second fluid therethrough and second header tanks arranged at longitudinal ends, respectively, of the plurality of the second tubes for communicating with the plurality of second tubes thereby to exchange heat between the air and the second fluid; wherein the first and second heat exchangers are arranged integrally in series with each other along the direction of the air flow. It is obvious to one in the ordinary skill of the art to modify Kanemitsu's invention by providing a first heat exchanger that comprises a plurality of first tubes for passing a first fluid therethrough and first header tanks arranged at longitudinally ends, respectively, of the plurality of first tubes for communicating with the plurality of first tubes thereby to exchange heat between the air and the first fluid; and second heat exchanger that comprises a plurality of second tubes for passing a second fluid therethrough and second header tanks arranged at longitudinal ends, respectively, of the plurality of the second tubes for communicating with the plurality of second tubes thereby to exchange heat between the air and the second fluid; wherein the first and second heat exchangers are arranged integrally in series with each other along the direction of the air flow in order to increase the cooling process.

Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kanemitsu et al. US Patent No. 5,123,695 in view of Bierjon et al. US Patent No. 6,196,624.

Kanemitsu discloses the applicant's invention as claimed with the exception of providing a hood lock secured to a heat exchanger.

Bierjon discloses a cross beam and disposition thereof in an automobile vehicle that does provide a hood lock secured to a heat exchanger. Therefore it would be obvious to modify Kanemitsu's invention by providing a hood lock secured to a heat exchanger in order to keep the hood tightly shut.

It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

The intended use statements are not given any patentable weight in this instance for example "for locking a hood is secured to the heat exchanger".

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Nihir Patel whose telephone number is (703) 306-3463. The examiner can normally be reached on Monday-Friday from 7:30am to 4:30pm. If attempts to reach the examiner by telephone are unsuccessful the examiner's supervisor Henry Bennett can be reached at (703) 308-0101.

Henry Bennett
Supervisor Patent Examiner
Art Unit 3700

NP
October 30, 2003